

## WHAT IS CLAIMED IS:

1. An isolated and purified peptide consisting essentially of an amino acid sequence selected from the group consisting of  
AVITGACDKDSQCGGGMCCAVSIWVKSIRICTPMGKLGDSCHPLTRKNNFGNGR  
QE (SEQ.ID.NO.:1) and  
AVITGACDKDSQCGGGMCCAVSIWVKSIRICTPMGQVGDSCHPLTRKSHVANGR  
QE (SEQ.ID.NO.:2), or a salt, amide, or ester thereof.
2. An isolated and purified PK2 $\beta$  peptide having an amino acid sequence corresponding to SEQ.ID.NO.:1.
3. An isolated and purified PK2 $\beta$  peptide having an amino acid sequence corresponding to SEQ.ID.NO.:2.
4. A method of treating a patient diagnosed with a disease or disorder mediated by PK1 activity, comprising administering a pharmaceutically active amount of a PK2 $\beta$  peptide consisting essentially of an amino acid sequence selected from the group consisting of  
AVITGACDKDSQCGGGMCCAVSIWVKSIRICTPMGKLGDSCHPLTRKNNFGNGR  
QE (SEQ.ID.NO.:1) and  
AVITGACDKDSQCGGGMCCAVSIWVKSIRICTPMGQVGDSCHPLTRKSHV  
ANGRQE (SEQ.ID.NO.:2), or a salt, amide, or ester of said peptide.
5. A method according to claim 4, wherein the peptide has an amino acid sequence corresponding to SEQ.ID.NO.:1.
6. A method according to claim 4, wherein the peptide has an amino acid sequence corresponding to SEQ.ID.NO.:2.
7. A method according to claim 4, wherein the disease or disorder is a lung disease or disorder.

8. A method according to claim 7, wherein the lung disease disorder is selected from the group consisting of asthma, sarcoidosis, interstitial lung disease, interstitial pneumonia, Sjogren syndrome, bronchiolitis obliterans syndrome, fibrotic lung disease, chronic obstructive pulmonary disease, and acute respiratory distress syndrome.

9. A method according to claim 4, wherein the disease or disorder is a gastrointestinal disease or disorder.

10. A method according to claim 9, wherein the gastrointestinal disease or disorder is selected from the group consisting of irritable bowel syndrome, diabetic gastroparesis, postoperational ileus, chronic constipation, gastroesophageal reflux disease, chronic dyspepsia, and gastroparesis.